This is repeated with greater or less rapidity, until a considerable portion has been taken, and the food is at once swallowed without any attempt at mastication. As the œsophagus is large, and very distensible, large pieces of the stalk are often swallowed whole, without inconvenience. A specimen of *T. areolata,* which I kept some years since, and which was so tame as to eat readily from my hand, would swallow in this way a piece of the stalk of cabbage, or a small piece of hard pear, nearly as long as its body, without biting it sufficiently to separate it into smaller pieces, or even to render it flexible; so that the posterior part of the stomach must have been forced backwards by it almost to the extent of the abdominal cavity, and this without producing the slightest apparent disturbance to the animal.

From these exclusively vegetable feeders we pass towards the fresh-water tortoises, which live on animal substances only, by the intermediate form of the Box Tortoises, which live on food of a mixed kind; of these, the common American species *Terrapene clausa* devours not only various vegetable matters, but snails, worms, and other small animals. The European species of the same genus, *T. europæa,* approaches more nearly in form and habit to the fresh-water tortoises, and may in fact be considered as the common fresh-water tortoise of Europe. Its common food consists of fish and other aquatic animals; and as it always leaves the air-bag of the fish which it eats, the number of these which float on the surface of a lake or pond is considered as an indication of the comparative number of tortoises which inhabit it. Yet even this species, so carnivorous in its general habits, is not necessarily confined to animal food; for we are told that in some parts of Europe, where it is eaten by the inhabitants, it is not only *fed* but *fattened* upon grains.

Such, however, is far from being the case with the more typical fresh-water species, including the remainder of the family *Emydidæ,* and the whole of the *Chelydidæ* and *Trionychidæ.* These live exclusively on animal food of different kinds, such as fish, batrachian animals, the young of water birds, aquatic mollusca and insects. They are generally furnished with long sharp claws, by which they tear their prey to pieces. These are particularly long in some of the American species, as *Emys irrigata, ornata, decussata,* in which they not unfrequently attain an inch or more in length. When the *Emydes* seize their

prey, if it be motionless or nearly so, they usually creep towards it with great caution, stretching the neck slowly till the mouth is within a short distance, and then seizing it by a sudden snapping motion of the jaws. I had an individual specimen of *Emys decussata* in my possession, which, whenever it was about to take food, stretched out the two anterior feet, one on each side of the head, and with the palms outwards. These were held in the same position for some moments, but agitated with a vibratory motion, after which the head was suddenly darted forwards on the prey. This curious manœuvre was repeated as often as a morsel of meat was held near him; but I never observed a similar habit in any other tortoise of this or any other species. In pursuing their prey however, when swimming, a greater degree of rapidity is of course necessary. I have seen a common fresh-water tortoise, *Emys lutaria,* pursue a frog in a large vessel of water with considerable rapidity, seize it by the belly, and tear it to pieces in a very short space of time. These animals may be very easily kept during the summer in a small pond or reservoir of water, by feeding them with pieces of raw lean beef, if living frogs, fish, or worms cannot be readily obtained. They will also feed on the intestines of fowls, and on almost any other animal substance.

The force and tenacity with which the carnivorous Testudinata seize and hold their food is very great. They may in fact, in some cases, be easily caught by allowing them to seize a piece of meat attached to a string, and then drawing it quickly out of the water.

The habits of *Chelydra serpentina* are those of extreme voracity. Endowed with great strength, and astonishing rapidity and force in the movements of its limbs and neck, it is enabled to pursue, seize and tear in pieces, fish of no inconsiderable size, and the young of aquatic birds which swim on the surface of the lakes in which it abounds.

It is said also to conceal itself in the mud, by which means it escapes the observation of the animals which it makes its prey, till they come within its reach. In this circumstance, as well as in the sudden snapping motion by which the species just mentioned seizes its food, the whole of the *Trionychidæ* probably resemble it. The flatness of the body and the soft flexible structure of its broad coriaceous margin peculiarly adapt them for concealment in the

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